

## STATE OF SOUTH CAROLINA

(Caption of Case)

In the Matter of:

Application of Duke Energy Carolinas,  
 LLC for Approval of Energy Efficiency  
 Plan Including an Energy Efficiency Rider  
 and Portfolio of Energy Efficiency Programs

BEFORE THE  
 PUBLIC SERVICE COMMISSION  
 OF SOUTH CAROLINA

## COVER SHEET

DOCKET

NUMBER: 2007 - 358 - E

(Please type or print)

Submitted by: J. Blanding Holman, IVSC Bar Number: 72260

Address: Southern Environmental Law Center  
200 W. Franklin Street, Suite 330  
Chapel Hill, NC 27516

Telephone: (919)967-1450Fax: (919)929-9421

Other: \_\_\_\_\_

Email: BHolman@SELCNC.org

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**DOCKETING INFORMATION** (Check all that apply)

- ☐ Emergency Relief demanded in petition      ☐ Request for item to be placed on Commission's Agenda expeditiously
- ☐ Other: \_\_\_\_\_

INDUSTRY (Check one)	NATURE OF ACTION (Check all that apply)		
<input checked="" type="checkbox"/> Electric	<input type="checkbox"/> Affidavit	<input type="checkbox"/> Letter	<input type="checkbox"/> Request
<input type="checkbox"/> Electric/Gas	<input type="checkbox"/> Agreement	<input type="checkbox"/> Memorandum	<input type="checkbox"/> Request for Certification
<input type="checkbox"/> Electric/Telecommunications	<input type="checkbox"/> Answer	<input type="checkbox"/> Motion	<input type="checkbox"/> Request for Investigation
<input type="checkbox"/> Electric/Water	<input type="checkbox"/> Appellate Review	<input type="checkbox"/> Objection	<input type="checkbox"/> Resale Agreement
<input type="checkbox"/> Electric/Water/Telecom.	<input type="checkbox"/> Application	<input type="checkbox"/> Petition	<input type="checkbox"/> Resale Amendment
<input type="checkbox"/> Electric/Water/Sewer	<input checked="" type="checkbox"/> Brief	<input type="checkbox"/> Petition for Reconsideration	<input type="checkbox"/> Reservation Letter
<input type="checkbox"/> Gas	<input type="checkbox"/> Certificate	<input type="checkbox"/> Petition for Rulemaking	<input type="checkbox"/> Response
<input type="checkbox"/> Railroad	<input type="checkbox"/> Comments	<input type="checkbox"/> Petition for Rule to Show Cause	<input type="checkbox"/> Response to Discovery
<input type="checkbox"/> Sewer	<input type="checkbox"/> Complaint	<input type="checkbox"/> Petition to Intervene	<input type="checkbox"/> Return to Petition
<input type="checkbox"/> Telecommunications	<input type="checkbox"/> Consent Order	<input type="checkbox"/> Petition to Intervene Out of Time	<input type="checkbox"/> Stipulation
<input type="checkbox"/> Transportation	<input type="checkbox"/> Discovery	<input type="checkbox"/> Prefiled Testimony	<input type="checkbox"/> Subpoena
<input type="checkbox"/> Water	<input type="checkbox"/> Exhibit	<input type="checkbox"/> Promotion	<input type="checkbox"/> Tariff
<input type="checkbox"/> Water/Sewer	<input type="checkbox"/> Expedited Consideration	<input type="checkbox"/> Proposed Order	<input type="checkbox"/> Other:
<input type="checkbox"/> Administrative Matter	<input type="checkbox"/> Interconnection Agreement	<input type="checkbox"/> Protest	
<input type="checkbox"/> Other:	<input type="checkbox"/> Interconnection Amendment	<input type="checkbox"/> Publisher's Affidavit	
	<input type="checkbox"/> Late-Filed Exhibit	<input type="checkbox"/> Report	

January 15, 2009

*VIA ELECTRONIC FILING*

Mr. Charles L.A. Terreni  
Chief Clerk of the Commission  
S.C. Public Service Commission  
P.O. Drawer 11649  
Columbia, SC 29211

RE: Application of Duke Energy Carolinas, LLC for Approval of Energy Efficiency Plan Including and Energy Efficiency Rider and Portfolio of Energy Efficiency Programs (Docket No. 2007-358-E)

Dear Mr. Terreni:

Please find attached for electronic filing in the above-referenced docket the Brief of Environmental Defense Fund, South Carolina Coastal Conservation League, Southern Alliance for Clean Energy and the Southern Environmental Law Center. By copy of this letter I am serving a copy of the same on all parties of record via electronic mail and U.S. Mail. If you have questions, please do not hesitate to contact me.

Sincerely,

s/Gudrun Thompson

Enclosure

Cc (w/encl.): Parties of Record (via electronic mail)

BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2007-358-E

In re:	)	
Application of Duke Energy	)	JOINT BRIEF OF
Carolinas, LLC for Approval of	)	ENVIRONMENTAL
Energy Efficiency Plan Including an	)	INTERVENORS
Energy Efficiency Rider and Portfolio	)	
of Energy Efficiency Programs	)	

PURSUANT to S.C. Reg. 103-851 and the South Carolina Public Service Commission's ("the Commission") December 23, 2008 Order Requiring Briefs and Denying Request to Close Record (Order No. 2008-834), intervenors Southern Alliance for Clean Energy, Environmental Defense Fund, South Carolina Coastal Conservation League and the Southern Environmental Law Center (collectively, "Environmental Intervenors"), by and through the undersigned counsel, submit the following brief on the Energy Efficiency Plan ("Save-a-Watt") proposed by Duke Energy Carolinas, LLC ("Duke" or "the Company").

**I. INTRODUCTION**

Environmental Intervenors welcome Duke's effort to initiate a large-scale energy efficiency program in its South Carolina service territory and support the fundamental concept behind Duke's proposal in this proceeding—that a utility should receive a financial incentive sufficient to encourage pursuit of all cost-effective energy efficiency. However, as proposed, Save-a-Watt would cost too much and yield too little energy savings. Save-a-Watt's avoided-cost-based compensation mechanism would bias the company in favor of demand response programs and against conservation programs and would allow the company to capture an excessive share of the benefits of energy efficiency, with little benefit to customers. We urge the Commission to ensure that any

financial incentive it approves not only protects consumers, but also results in a sustainable energy-efficiency program that delivers maximum cost-effective energy savings.

## **II. STATEMENT OF THE CASE**

On September 28, 2007, Duke filed its application for approval of its Energy Efficiency Plan ("Save-a-Watt") for approval by the Commission. In its application, Duke requested approval of i) a "new regulatory approach to energy efficiency and demand response programs; (ii) an energy efficiency rider ; and (iii) a portfolio of energy efficiency programs. In support of its application, the Company filed direct testimony on December 10, 2007 and rebuttal testimony on January 24, 2008. Intervenor Environmental Defense (now known as Environmental Defense Fund), South Carolina Coastal Conservation League, Southern Alliance for Clean Energy and the Southern Environmental Law Center filed direct testimony on January 17, 2008 and surrebuttal testimony on January 28, 2008, offering a critique of Duke's application and suggestions as to how it could be improved. On January 29, 2008, the Company filed a joint motion for approval of a partial settlement, resolving all issues between the Office of Regulatory Staff ("ORS"), the South Carolina Energy Users Committee ("SCEUC") and Wal-Mart Stores East, L.P ("Wal-mart"), and on February 1, 2008, the Company, ORS and Piedmont Natural Gas Company Inc. ("Piedmont") filed a separate joint motion for approval of a partial settlement resolving certain issues.

On February 5-6, 2008 the Commission held a formal evidentiary hearing, at which the Company and Environmental Intervenor presented witnesses. Environmental Intervenor filed a response opposing approval of the partial settlement on February 13,

2008. Duke requested that the Commission close the record and require the submission of briefs and proposed order by letters filed March 18, 2008 and November 25, 2008. On November 26, 2008, ORS filed a letter supporting Duke's request for closure of the record. Duke also filed proposed program tariffs on November 21, 2008. By Order dated December 23, 2008 (Order No. 2008-834), the Commission denied Duke's request for closure of the record; however, the Commission granted the Company's request for the parties to brief the Commission on the Save-a-Watt proposal and ordered that parties file briefs by January 15, 2009. On January 8, 2009, the Company filed a petition for clarification and reconsideration of Order No. 2008-834, which remains pending.

### III. LEGAL FRAMEWORK

The General Assembly has vested the Commission with "power and jurisdiction to supervise and regulate the rates and service of every public utility in this State . . . ." S.C. Code Ann. § 58-3-140 (2007). An electric utility must file with the Commission "schedules showing all rates . . . established by the electrical utility and collected or enforced or to be collected or enforced within the jurisdiction of the commission." S.C. Code Ann. § 58-27-820 (2007).

In setting rates, the Commission is bound by the principle that "[c]very rate made, demanded or received by any electrical utility . . . shall be *just and reasonable*." S.C. Code Ann. § 58-27-810 (2007) (emphasis added). See In re Application of South Carolina Electric & Gas Company for Adjustments in the Company's Electric Rate Schedules and Tariffs, Docket No. 2004-178-E, Order No. 2005-2 (S.C. P.S.C., Jan. 6, 2005) ("[i]n setting rates, the Commission must determine a fair rate of return that the utility should be allowed the opportunity to earn after recovery of the expenses of utility

operations.”). This process “involves the balancing of the investor and the consumer interests.” Southern Bell Telephone and Telegraph Co. v. South Carolina Public Service Commission, 270 S.C. 590, 595, 244 S.E. 2d. 278, 281 (1978). Specifically:

A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public *equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures*. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.

Id. at 596, 244 S.E. 2d. at 281 (quoting Bluefield Water Works and Improvement Co. v. Public Service Commission of West Virginia, 262 U.S. 679, 692-73 (1923)) (emphasis added).

Where changes in rates or tariffs are proposed, the Commission must “hold a public hearing concerning the lawfulness or reasonableness” of the proposed changes, and must document fully its determination of “a fair rate of return based exclusively on reliable, probative, and substantial evidence on the whole record.” S.C. Code Ann. § 58-27-870. While “[n]othing in the plain language of the statute requires the PSC to adopt any one particular . . . methodology” in setting rates, Nucor Steel v. S.C. Pub. Service Commission, 312 S.C. 79, 85, 439 S.E.2d 270, 273 (1994) (construing identical language in S.C. Code Ann. § 58-5-240(H)), the Commission has employed the following guidelines in evaluating rates of return requested by electric utilities:

- 1) The rate of return should be sufficient to allow [the utility] the opportunity to earn a return equal to firms facing similar risks;
- 2) The rate of return should be adequate to assure investors of the financial soundness of the utility and to support the utility's credit and ability to raise capital needed for on-going utility operations at reasonable cost;

- 3) The rate of return should be determined with due regard for the present business and capital market conditions facing the utility;
- 4) The rate of return is not formula-based, but requires an informed expert judgment by the Commission balancing the interests of shareholders and customers.

In re Application of South Carolina Electric & Gas Company for Adjustments in the Company's Electric Rate Schedules and Tariffs, Docket No. 2004-178-E, Order No. 2005-2 (S.C. P.S.C. Jan. 6, 2005). See also In re Application of South Carolina Electric & Gas Company for an Increase in its Electric Rates and Charges, Docket No. 2002-223-E, Order No. 2003-38, 225 P.U.R.4th 440 (S.C. P.S.C., Jan. 31, 2003) (same).

Duke's request in this proceeding for a novel compensation mechanism and a rider on rates also implicates S.C. Code Ann. § 58-37-20, which governs the adoption of procedures encouraging energy efficiency and conservation. That section provides, in relevant part, that

the Commission may adopt procedures that encourage electrical utilities . . . to invest in cost-effective energy efficient technologies and energy conservation programs. If adopted, these procedures must: provide incentives and cost recovery for energy suppliers and distributors who invest in energy supply and end-use technologies that are cost-effective, environmentally acceptable, and reduce energy consumption or demand; allow energy suppliers and distributors to recover costs and obtain a reasonable rate of return on their investment in qualified demand-side management programs sufficient to make these programs at least as financially attractive as construction of new generating facilities; require the Public Service Commission to establish rates and charges that ensure that the net income of an electrical or gas utility regulated by the commission after implementation of specific cost-effective energy conservation measures is at least as high as the net income would have been if the energy conservation measures had not been implemented.

S.C. Code Ann. § 58-37-20.

**IV. ARGUMENT: SAVE-A-WATT'S AVOIDED-COST-BASED COMPENSATION SCHEME IS FUNDAMENTALLY FLAWED AND RESULTS IN A WEAK MENU OF PROGRAMS**

Save-a-Watt's avoided-cost-based compensation mechanism would not provide the Company with an incentive to pursue all cost-effective energy efficiency and would allow the company to capture an excessive share of the benefits of energy efficiency, minimizing the benefit to ratepayers and threatening the sustainability of the program. These key flaws, in addition to others, are discussed in detail below.

**A. Duke's proposal that it receive as compensation 85 percent of the avoided cost of new generation is unsupported by the evidence and counter to the public interest and state law.**

Under the proposed settlement with ORS, Wal-Mart and SCEUC, the Company seeks compensation for its Save-a-Watt programs based on revenue requirements equal to 85 percent of its avoided capacity and energy costs. Direct Testimony of Ellen Ruff, Tr. Vol. 1 at 119. For this compensation structure to pass muster under state law, Duke must show that, among other things, it is "just and reasonable," S.C. Code Ann. § 58-27-810, and would result in a "fair rate of return" to the Company, S.C. Code Ann. § 58-27-870. Duke has not met this burden. In fact, Duke has offered no support for the appropriateness of either the 90 percent figure it originally proposed, or the Settlement's 85 percent figure, other than the notion that it would represent a "discount" of 10 (or 15) percent compared to the cost of generation.

Faced with repeated questions from the Commission and counsel for intervenors, Duke witnesses—including top executives of the Company—were unable to articulate a principled basis for the 85 percent figure. For example, when asked by the Commission whether Duke had performed any calculations using different avoided cost percentages "to see if the program still works, or is there any kind of break point for the company?," Duke Energy CEO James Rogers sidestepped the question. Tr. Vol. 1, pp. 210-211.



Duke President Ellen Ruff, when asked how Duke arrived at the 85 percent number, stated simply that that "It was a settlement, and 85 percent was part of the settlement. We filed for 90, which we thought was the appropriate level to file, and as part of the overall settlement we agreed to 85." Tr. Vol. 1, p. 160.

The evidence offered in pre-filed expert testimony and at hearing showed that Save-a-Watt's avoided-cost-based compensation mechanism would allow Duke to capture too large a share of the cost savings from energy efficiency, while customers would see little benefit in terms of reduced energy bills. Conversely, if Duke is going to be compensated richly for the Save-a-Watt program, it should be achieving far greater energy savings.

Under the proposed Settlement Agreement, a balance of over \$87 million in overcollected customer charges would be "flowed through" to customers via a rate decrement to offset the effect of the Rider EE (SC) increase. As Company witnesses acknowledged, the \$87 million DSM balance represents accumulated DSM billings in excess of DSM costs incurred by Duke, i.e., money that Duke owes its customers and that it must return to them, regardless of whether the proposed Settlement or the pending Application are approved. Although the accelerated flow-through of the DSM deferral balance would mitigate the short-term rate impacts of the Rider EE (SC), no testimony or other evidence has been offered to show that it is in the public interest to tie the return of these overcharges to customers to approval of the pending save-a-watt Application, rather than through another proceeding where the accounting can be examined in detail.

**B. Save-a-Watt's avoided-cost-based compensation mechanism would bias the Company in favor of demand response programs and against conservation programs.**

The avoided-cost compensation mechanism proposed by Duke would not, in fact, provide the Company with a strong financial incentive to pursue *all* cost-effective energy efficiency. Instead, Duke's proposed compensation mechanism would bias the company in favor of demand response programs and against more environmentally beneficial conservation programs.

This bias is a result of "lost revenues" due to reduced kilowatt-hour ("kWh") sales from energy conservation programs. (In contrast to energy conservation, demand response programs do not result in lost revenues because they do not reduce electricity sales.) As Witness Nichols explained,

The very structure of Save-A-Watt fails to incent extensive energy conservation. The reason is simple: ninety percent of avoided costs is the maximum available to "cover" utility program costs, any net lost revenues, and any shareholder reward. The utility cannot pursue cost-effective energy conservation whose costs approach ninety percent of avoided costs, because that leaves diminishing room for recovering net lost revenues, let alone obtaining an additional shareholder reward. Conversely, if the utility focuses on cheaper energy conservation --which is only a fraction of the cost-effective conservation potential -- more room is left for net lost revenue recovery and potential additional earnings.

Tr. Vol. 2, p. 767.

Thus, under Save-a-Watt, every dollar the Company spends on program costs is a dollar that is not available to compensate the Company for lost revenues from energy conservation programs. As a result, for energy conservation measures whose program costs are close to their avoided costs, Save-a-Watt provides at best a weak financial incentive. This critical flaw in the design of Save-a-Watt may help explain why the Company is proposing such low energy conservation figures.

Although the Company is receiving an excessive share of the overall savings, as a result of lost revenues from conservation programs, it is not receiving *any* share of

savings for reductions in annual energy. Instead, Duke's portion of savings results from the compensation it receives for reductions in peak demand. Thus, Save-a-watt not only fails to provide a strong incentive for energy conservation—as proposed, it provides a disincentive as the Company would actually *lose* money on conservation programs.

Throughout these proceedings, Duke uses the term “energy efficiency” to refer to both demand response and energy conservation measures and programs. *See, e.g.,* Cross-examination of Theodore E. Schultz, Tr. at 294. However, it is important to distinguish between demand response and energy conservation, which produce very different results and have different implications for the Company's future generation mix, environmental impacts and rates.

Demand response is a set of measures that shifts electricity use from peak to off-peak demand periods. Energy conservation includes measures that result in less energy used to perform the same function. Cross-examination of Theodore E. Schultz Cross, Transcript Vol. 1 at 294. *See also* Pre-filed Direct Testimony of David Nichols at 3, Tr. at 760.

Demand response does not reduce total annual electricity generation, so it results in little or no avoided emissions of conventional or greenhouse gas pollutants.

Meanwhile, demand response is very beneficial to the utility, Nichols Testimony, Transcript at 699-700, which ultimately charges for the same amount of kWh, but avoids paying for electricity on the market at its most expensive, Pre-filed Direct Testimony of David Nichols at 3, Tr. at 760, or building new peaker capacity. Cross-examination of Theodore E. Schultz, Transcript at 294-295. For that reason, demand-response has long

been standard practice for utilities in the United States, without the need for special incentives or payments. Nichols Testimony, Transcript. at 700.

Energy conservation, in contrast, leads to less energy use overall, which in turn reduces both environmental impacts and customer bills. See Cross-examination of Stephen Farmer, Tr. at 577. It also offsets the need for new base load capacity, averting the cost to the utility of building new base load power plants, see Cross-examination of Janice D. Hager, Tr. at 679, and the rate increases needed to pay for them. This results in greater reductions in customer bills and utility costs, and greater positive environmental impacts than demand response, Prefiled Direct Testimony of David Nichols at 14, Tr. at 771.

The Save-a-Watt program as proposed is extremely demand-response heavy, to the detriment of significant energy conservation achievement. The slate of demand-response programs include the residential Power Manager and the non-residential Power Share programs. Pre-filed Direct Testimony of Theodore E. Schultz, Transcript Vol. 1 at 257. In addition, Duke is closing and re-packaging as "new" 700 MW of old demand-response programs, for which it now seeks compensation. Prefiled Direct Testimony of David Nichols at 18, Tr. at 775. But Save-a-Watt includes very few energy conservation programs, and the programs that are included do not represent industry best practices. While Duke plans to offer energy audits to both residential and non-residential customers, *id.*, these are aimed at both demand response and energy conservation. Cross-examination of Theodore E. Schultz, Transcript Vol. 1 at 297. Further, Duke is not planning on backing these up with much in the way of financing to make needed improvements. See *id.* ("We typically combine [the assessments] with some kind of

promotion on the conservation side.”). The only other energy conservation programs included in the first raft of programs are a low-income program, incentives for residential ratepayers to buy new energy-star bulbs and appliances, and new HVAC units, and incentives for non-residential ratepayers to improve lighting, HVAC and ventilation. *Id.*

Left off the list are critical programs such as new construction programs, Pre-filed Direct Testimony of Donald Gilligan at 11, Tr. at 435, training programs to make sure new HVAC systems and other equipment are properly installed, *id.* at 12, 436, programs that improve entire HVAC systems, including ducts and controls, or a standard-offer program for large customers. *Id.* at 13, 437. Overall, neither the residential nor non-residential programs take a comprehensive approach that would improve the energy efficiency of whole buildings and industrial processes—a hallmark of the most successful energy efficiency programs run by utilities in other states.

In sum, Duke has proposed in this docket a demand-response-heavy program that achieves little in the way of energy conservation. This would not fulfill the goals of S.C. Code. Ann. § 58-37-20, which is meant to “encourage electrical utilities . . . to invest in cost-effective energy efficient technologies and energy conservation programs.” We urge the Commission to order Duke to submit an expanded menu of programs with a heavier concentration on energy conservation, and to exclude from compensable programs the 700 MW of existing demand-response programs that Duke seeks to have included.

Duke readily admits that their initial slate of programs is incomplete. It has sought to reassure the Commission and intervenors that Save-a-Watt as proposed is only a starting point, and that they hope the menu of programs will grow and improve. *See,*

*e.g.*, Cross-examination of Ellen T. Ruff, Tr. at 177, Pre-filed Direct Testimony of Richard Stevie at 8, Tr. at 360.

While Duke's willingness to try new things is laudable, in light of the weak menu of programs put forward thus far, it is worrisome that there is no mechanism to ensure that Duke will not leave measures that could achieve significant energy efficiency on the table.

Should the Commission approve the Save-a-Watt program, environmental intervenors urge the Commission to include a firm requirement that Duke, as it promised during these proceedings, *see e.g.* Pre-filed Rebuttal Testimony of Theodore E. Schultz, Tr. at 269 ("Duke Energy Carolinas is committing to all cost-effective energy efficiency, as defined by NAPEE"); *id.* at 275 ("The Company welcomes all cost-effective program ideas."), implement all cost-effective energy conservation programs.

As designed, Duke's cost-effectiveness analysis underestimates avoided energy costs, and therefore excludes programs from consideration that are, in fact, cost effective. The basic cost-effectiveness calculation compares the program costs of an energy efficiency program to the avoided costs it yields. If avoided costs are the higher of the two, the measure is cost effective; if avoided costs are lower, the measure is not. But this is not as straightforward as it seems, because different avoided cost figures can be used for the cost-effectiveness test. Duke proposes to use the cost of new peaker generation as its avoided cost figure (using the peaker methodology it uses in calculating the PURPA QF rate), rather than the cost of base load capacity, or a blended cost. Pre-filed Direct Testimony of Richard G. Stevie, at 13, Tr. Vol. 1 at 365. And because new

peaker generation is relatively inexpensive, too few energy efficiency measures pass Duke's cost-effectiveness test.

Environmental intervenors urge that Duke should incorporate base load and intermediate power plant costs into the avoided cost figure it uses for the cost-effectiveness test, because it is proposing to build expensive new base load and intermediate power plants to meet its projected need for electricity. If it did so, it would be able to put forward a far more robust set of programs.

Further, while cost-effectiveness should be a criterion for whether a program is included in Save-a-Watt, Duke should *also* be looking at what programs will be most effective in "generating" kWh through energy conservation. Because effectiveness is not a major criterion, the initial batch of Save-a-Watt programs overlooks programs like building envelope improvements, or a standard offer program, which could quickly achieve significant results.

**C. Basing Duke's compensation for Save-a-Watt programs on a PURPA avoided cost rate is not appropriate and not required by state law.**

The Company proposes that the rate used to quantify the value of avoided capacity costs be based on the methodology, inputs and sources that are normally used to calculate the rate that Duke pays for energy received from qualifying facilities ("QFs") as defined by the Public Utilities Regulatory Policy Act of 1978 ("PURPA"). Farmer Direct, Tr. Vol. 2 at 526. Although superficially appealing, basing compensation on the PURPA QF rate is inappropriate and certainly not required under state law.

PURPA rates for purchased power are supposed to reflect what it would actually cost the utility to produce power. The problem with using the PURPA rate as the basis for compensation for energy efficiency, as Duke proposes, is that the PURPA rate is not

based on what it would cost the utility to deliver energy efficiency programs, but instead is based instead on the much higher cost of generation. Testimony of David Nichols, Tr. Vol. 2, p. 694. In addition, PURPA rates apply only to unregulated third parties. Duke's proposal that to receive PURPA-type payments as a regulated utility is an unprecedented proposal. In a sense, as Witness Nichols observed, "Duke is asking ratepayers to compensate the company as if it were an unregulated third party." Nichols, Tr. Vol. 2, p. 695.

**D. A cost-of-service compensation mechanism would provide the Company with a sufficient incentive to maximize energy savings.**

As discussed above, Environmental Intervenors support the core concept of Duke's Save-a-Watt proposal: that a utility should receive a financial incentive sufficient to encourage pursuit of all cost-effective energy efficiency. This premise is consistent with state law: S.C. Code Ann. § 58-37-20 requires that the Commission provide incentives and cost recovery for utility investments in "cost-effective, environmentally acceptable" measures that "reduce energy consumption or demand." Moreover, there is ample evidence in the record that proper incentives for energy efficiency are necessary and appropriate.

According to the Company, cost-based approaches to compensation have failed in the past. When asked about this claim, Dr. Nichols, an energy economics expert with over three decades of experience testified that "[Mr. Rogers] said it had failed, but in fact it hasn't." Tr. Vol. 2, pp 709-710. Duke witness Janice Hager testified that the Company had "tried" the traditional method of recovery of program costs, lost revenues (although they "never attempted to recover" those) and shared savings. Tr. Vol. 2, p. 681. In short, there is no evidence that the alleged "failure" was due to anything inherent in the



traditional cost-based model—or, for that matter, that the Company tried very hard to implement successful energy efficiency programs (as illustrated by the fact that Duke collected over \$87 million in customer charges in excess of program costs, Tr. Vol. 2 at 571).

As discussed above, under S.C. Code Ann. § 58-37-20, the Commission has the authority to approve compensation mechanisms for utility expenditures on energy efficiency and DSM. Pursuant to this authority, the Environmental Intervenor recommends that the Commission approve a compensation mechanism for Duke's energy efficiency gains under the Save-a-Watt programs based on this cost-of-service model. To promote utility conservation, an appropriate framework must address the following elements, at a minimum: 1) A framework whereby the utility recovers its direct costs for operating conservation programs, in an explicit and transparent fashion; 2) A ratemaking methodology to account for the impact of energy conservation programs in reducing utility sales of energy, if required<sup>1</sup>; and 3) Consideration of financial incentives to the utility if it performs well in achieving energy conservation goals, with possible penalties for significant underperformance. Nichols Testimony, Tr. Vol. 2 at 768. As Witness Wilson explained, "The best advice that we've gotten from energy efficiency experts around the country is that a proven approach using cost recovery, plus some method to ensure that utility earnings are not adversely harmed by loss of sales, plus some kind of performance incentive is the best approach." Tr. Vol. 2, pp. 827-28.

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<sup>1</sup> Decoupling of revenues from sales (and the corresponding link between utility throughput and utility recovery of fixed costs) is the superior approach to removing a utility's financial disincentive to pursue energy efficiency. Lost revenue recovery should only be considered an interim solution, as it is not the best method to align the interests of utility shareholders with those of customers and to promote increased, sustained investments in energy efficiency. The approach needs to be reexamined, and decoupling should be considered, at the earliest possible time.

A higher bonus incentive is appropriate for conservation programs (programs that save kWh) than for demand response programs (programs that save only kW) because demand response programs benefit Duke by reducing system demand and because of the greater environmental benefits from energy conservation programs.

The incentive should be based on actual verified performance of achieving efficiency results and should be scaled, with higher incentives for higher achievement. The incentive structure should include a minimum performance standard, as a percent of the base energy savings goal, at and above which incentives are earned, as well as penalties for poor performance.

**E. How will potential federal mandates for energy efficiency affect Save-a-Watt, since the new administration has said it intends to invest substantial sums of money in this area?**

As of January 15, 2009, the proposed stimulus package from Congress would include the following investments in energy efficiency:

- Updating the Electrical Grid: Congress would like to invest \$11 billion into the Smart Grid Investment Program to modernize the electricity grid to make the electricity grid more efficient, secure, and reliable.
- Direct Funding for Government Energy Efficiency. Congress would like to invest \$6 billion for renovations and repairs to federal buildings focused on increasing energy efficiency and conservation; \$6.9 billion to help state and local governments become more energy efficient; and \$1.5 billion to help school districts, universities and community colleges, and municipal utilities become more energy efficient.

- Low-income Housing Stock Improvements: Congress would like to invest \$2.5 billion for a new program to upgrade HUD sponsored low-income housing to increase energy efficiency, including new insulation, windows, and furnaces; and \$6.2 billion to help low-income families reduce their energy costs through weatherization.
- Energy Star Incentives: Congress would like to spend \$300 million to provide consumers with rebates for buying energy efficient Energy Star products to replace old appliances.
- Energy Efficiency and Renewable Energy Research: Congress would like to award universities, companies, and national laboratories \$2 billion in grants for energy efficiency and renewable energy research, development, demonstration, and deployment activities.

Duke stands to directly benefit from funds to update the electrical grid, which will amplify the benefits that flow to the company from their current and future demand-response programs. This cuts further against allowing the Company to collect incentives through the Save-a-Watt program for demand response programs that were already in their self-interest.

There will be a general increase in non-utility-sponsored energy efficiency as the state and local government, school, and low-income energy efficiency grants are distributed and spent. This redoubles the importance of exacting measurement and valuation to make sure that Duke does not collect incentives for energy conservation for which it is not responsible. Duke may also see a modest curtailment in electricity consumption growth from these programs, as well as from the energy-star incentives.

Further, the energy-star incentives may affect the cost-effectiveness of Duke's own planned energy-star incentives.

#### **F. Conclusion**

In summary, there is no reason the Commission cannot craft a proper incentive without using the flawed avoided cost approach proposed by Duke. Duke may not hold its least-cost planning obligations hostage to its internal management decisions regarding what is "appropriate" regulatory treatment. That is for this Commission to decide. Accordingly, Environmental Intervenors urge the Commission to disapprove Duke's proposed avoided-cost compensation scheme and instead adopt a compensation mechanism based on recovery of program costs and lost revenues and an equitable performance incentive tied to explicit savings targets.

#### **RELIEF REQUESTED**

The Environmental Intervenors respectfully request that the Commission grant the following relief:

A. Approve Duke's proposed programs on an interim basis, subject to the following regulatory conditions:

1. Duke shall work with an advisory group, including interested parties to this docket, to develop an expanded portfolio of energy conservation programs. Duke shall submit these new programs to the Commission for approval prior to commencing program activities for years 2 through 4.

2. Duke shall maintain existing customer accounts on Rider Interruptible Service for four years, allowing transfer of existing customers to, and enrollment of, new customers in Power Share.

3. Duke shall perform an analysis of the energy efficiency impacts necessary to avoid or defer new baseload generation in the Company's Integrated Resource Plan.

4. Duke shall implement all cost-effective energy efficiency programs and shall achieve ongoing annual energy savings of at least 0.34 percent of 2009 retail electricity

sales by 2009, 0.37 percent of 2009 retail electricity sales by 2010, 0.54 percent of 2009 retail electricity sales by 2011, 0.75 percent of 2009 retail electricity sales by 2012 (totaling a cumulative 2% by 2012) and one percent (1%) of 2009 retail electricity sales by 2015, and shall achieve annual energy savings of at least an additional one percent (1%) per year thereafter.

5. The Company shall provide to the Commission an annual accounting of the energy (MWh) and capacity (MW) savings from Save-a-Watt programs.

6. Future revenues from carbon emission allowances, credits or offsets resulting from save-a-watt programs shall be credited to customers or reinvested in the programs.

B. Disapprove the Company's proposed avoided-cost-based compensation mechanism and proposed Rider EE, and

1. Approve a compensation mechanism for Duke's energy efficiency gains under the Save-a-Watt programs including the following: (i) Recovery of reasonable and prudent program costs; (ii) Compensation for three years of net lost revenues; and (iii) A bonus incentive based on a percentage of shared savings of 5 percent for demand response and a range of 10-12% for conservation programs if savings meet or exceed targets described in paragraph A.4 above.

2. In the alternative, require Duke to file a new application for a compensation mechanism. In the interim, Duke shall place incurred program costs into a deferred account and Duke may earn a return on them per [sc statute/regs] and the contents of the deferred account will be subject to true-up once an appropriate compensation mechanism is approved by the Commission.

C. Allow all intervenors the opportunity to comment on the subsequent filings in this docket, including the Company's submissions pursuant to paragraphs A and B above, and to request additional public and/or evidentiary hearings on issues raised by those submissions.

D. Require the accumulated balance of the DSM deferred account to be refunded to customers separate from Save-a-Watt over the next two years, and the accounting for such refund to be subject to Commission review during the Company's next rate case.

E. Grant such other relief as the Commission deems just and proper.

Respectfully submitted, this 15th day of January, 2009.

s/Gudrun Thompson

Gudrun Thompson  
Southern Environmental Law Center  
200 W. Franklin Street, Suite 330  
Chapel Hill, NC 27516  
Telephone: (919) 967-1450  
Fax: (919) 929-9421

J. Blanding Holman IV, SC Bar No. 72260  
38 Broad Street, Suite 200  
Charleston, SC 29401  
Telephone: (843) 720-5270  
Fax: (843) 720-5240

*Attorneys for Environmental Defense Fund,  
Southern Alliance for Clean Energy,  
South Carolina Coastal Conservation League and  
the Southern Environmental Law Center*

## CERTIFICATE OF SERVICE

I hereby certify that the following persons have been served with the Brief of Environmental Defense Fund, South Carolina Coastal Conservation League, Southern Alliance for Clean Energy and the Southern Environmental Law Center by electronic mail:

Catherine E. Heigel  
Duke Energy Carolinas, LLC  
Post Office Box 1006, EC03T  
Charlotte, NC, 28201-1066  
Email: ccheigel@duke-energy.com

Elliott & Elliott, P.A.  
721 Olive Street  
Columbia, SC, 29205  
Email: selliott@elliottlaw.us

Nanette S. Edwards  
Office of Regulatory Staff  
1401 Maine Street, Suite 900  
Columbia, SC, 29201  
Email: nsedwar@regstaff.sc.gov

Bonnie D. Shealy  
Robinson, McFadden & Moore, P.C.  
Post Office Box 944  
Columbia, SC, 29202  
Email: bshealy@robinsonlaw.com

Frank R. Ellerbe III  
Robinson, McFadden & Moore, P.C.  
P.O. Box 944  
Columbia, SC, 29202  
Email: fellerbe@robinsonlaw.com

Robert E Tyson, Jr.  
Sowell Gray, Stepp & Laffitte, LLC  
Post Office Box 11449  
Columbia, SC 29211  
RTyson@sowell.com

Jeremy Hodges  
Nelson, Mullins, Riley & Scarborough  
1320 Main Street  
Columbia SC 29201  
Email:  
Jeremy.hodges@nelsonmullins.com

Lawrence B. Somers  
Duke Energy Carolinas, LLC  
Post Office Box 1244, PB05E  
Charlotte, NC 28201-1066  
Email: lbsomers@duke-energy.com

James H. Jeffries IV  
Moore & Allen, PLLC  
Bank of America Corporate Center  
100 North Tryon Street, Suite 2700  
Charlotte, NC 28202  
jimjeffries@mvalaw.com

This 15th day of January 2009.

s/ Gudrun Thompson